

ELECTRIC VEHICLE (EV) & BATTERY



Indiana
Economic Development Corp[®]

INDIANA'S AUTOMOTIVE INDUSTRY IS THE
2ND LARGEST
BY GDP IN THE U.S. (>\$18.5B)

2ND LARGEST
PRODUCER OF TRUCKS

3RD LARGEST
PRODUCER OF CARS

3RD IN OVERALL
AUTOMOTIVE
PRODUCTION

5 MAJOR OEM
ASSEMBLY
PLANTS

500+
AUTOMOTIVE
PARTS SUPPLIERS

9,000
MANUFACTURING
OPERATIONS

INDIANA'S AUTOMOTIVE
SECTOR EMPLOYS
115,000 +
WORKERS

\$78,000+
AVERAGE WAGE

1.3 MILLION
CARS AND TRUCKS
PRODUCED ANNUALLY

1 IN **5**
HOOSIERS WORK IN
ADVANCED
MANUFACTURING

\$7.3 BILLION
IN AUTO EXPORTS

MAJOR COMPANIES & INDUSTRY FOOTPRINT

SOURCE: Dun & Bradstreet, November 2020.

CUMMINS INC.

Columbus

BORGWARNER INC.

Anderson

THOR INDUSTRIES INC.

Elkhart

KEIHIN CORPORATION

Anderson

WABASH NATIONAL CORPORATION

Lafayette

STELLANTIS

Kokomo

FAURECIA

Fort Wayne

KPS CAPITAL PARTNERS LP

South Bend

ALLISON TRANSMISSION HOLDINGS INC.

Indianapolis

TENNECO INC.

Ligonier

LCI INDUSTRIES

Elkhart

VALEO

Seymour

ENKEI AMERICA INC.

Columbus

BERKSHIRE

HATHAWAY INC.

Indianapolis

GROTE INDUSTRIES LLC

Madison

GULF STREAM COACH INC.

Nappanee

F.C.C. CO. LTD

Berne

WINNEBAGO INDUSTRIES INC.

Middlebury

NTN CORPORATION

Columbus, Anderson

JASPER ENGINE EXCHANGE INC.

Jasper

FLEX-N-GATE LLC

Covington

GECOM

Greensburg

HENRY CROWN AND COMPANY

Indianapolis

UC HOLDINGS INC.

Indianapolis

TI FLUID SYSTEMS PLC

Ossian



A new charging cable design developed by Purdue professor Issam Mudawar (center) and his students could reduce an electric vehicle's charging time to under five minutes.

THE NEXT GENERATION OF ENERGY

As demand for electric vehicles and renewable energy increases, Indiana is working to meet the demand for next-generation energy systems in a global market with access to world-class research universities, a highly-trained workforce and a business-friendly environment.

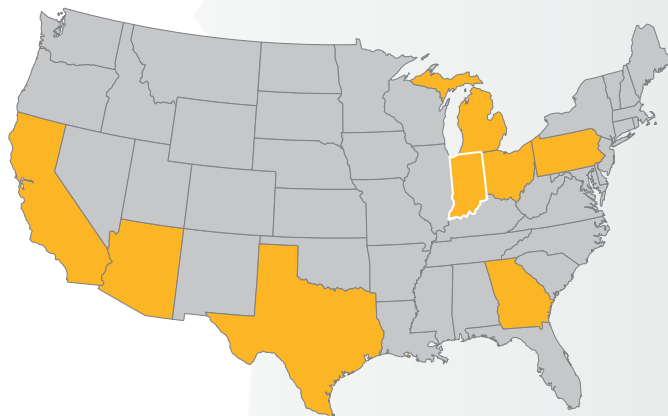
POWERFUL MINDS AT WORK

Indiana is home to nationally ranked universities and some of the nation's best energy research and engineering degree programs.

TALENT PIPELINE

Indiana is ranked one of the Top 10 states in the U.S. for degree universities relevant to EV/battery manufacturing. As a result, Indiana boasts one of the most highly trained, work-ready labor forces in the country.

- Purdue University is ranked the No.1 school in the U.S. for graduates with degrees relevant to EV/battery manufacturing.
- Approximately 240,000 Hoosiers across the state are employed in industries related to EV/battery manufacturing, including automotive, electrical and electronic manufacturing.
- More than 120,000 workers across Indiana have already received next-generation energy systems training.



Highlighted states indicate location of Top 10 talent/degree universities relevant to EV/battery manufacturing.

TOP-RANKED BUSINESS ENVIRONMENT

Through hard work and common-sense spending, Indiana has maintained a balanced budget for years and has built a healthy reserve of “rainy day” cash. As a result, already low business taxes are actually trending down. Indiana businesses also enjoy remarkable regulatory freedom. As a “Right to Work” state, Indiana workers are free to work without the pressure to join a union. All of this makes Indiana more competitive than other states, including California, Illinois and New York.

TALENT PIPELINE

Indiana is home to nationally-ranked universities with world-class engineering and manufacturing degree programs. Training initiatives like Next Level Jobs include a powerful advanced manufacturing track dedicated to automation and robotics technology. As a result, Indiana boasts a deep, highly-skilled workforce. In fact, 20% of Hoosiers are working in advanced manufacturing — well above the national average.



CHICAGO



UNIVERSITY OF NOTRE DAME

FORT WAYNE



PURDUE UNIVERSITY

ILLINOIS

INDIANAPOLIS

BUTLER UNIVERSITY



ROSE-HULMAN INSTITUTE OF TECHNOLOGY

SPRINGFIELD

RIGHT TO WORK STATE



INDIANA UNIVERSITY

VINCENNES UNIVERSITY



LOUISVILLE



FIRST

IN SHORTEST DISTANCE TO MEDIAN CENTER OF U.S. POPULATION

4.9%

CORPORATE TAX RATE

1ST IN RAIL TONS OF PRIMARY METALS

A graphic of a railroad track with multiple parallel lines receding into the distance.



INDIANA SUCCESS STORIES



Located in Newberry, Indiana, the Battery Innovation Center (BIC) brings leadership from universities, government agencies and commercial enterprises together to accelerate the development, testing, commercialization and advanced learning of safe, reliable, high-performance lightweight energy storage systems. The bold initiative catalyzes technologies by reducing lengthy, expensive innovation-to-commercialization development cycles. To further expedite the process, the Battery Innovation Center does not hold patent rights, encouraging joint development.

The 35,000-square-foot space is capable of handling a wide range of services including:

Advanced Cell Manufacturing

- Low volume cell and pack production
- Material and process research and development

Testing, Evaluation and Certification

- Battery testing and validation
- Micro-grid and V2G testing

Research & Development

- Standards and materials development
- Nobel labs

Applied Services and Technical Advisory

- Expert feedback and analysis
- Competitive analysis

Applied Services and Technical Advisory

- Battery energy storage short courses (*continuing education units*)
- AC/DC HV fundamentals courses (*continuing education units*)
- Energy storage technologies executive workshop
- Customized on-site and remote training

“The BIC has far-reaching impacts on everything from electric vehicles, to military applications, to grid storage. Indiana is at the center of this innovation through this organization.”

– Paul Mitchell
ESN President and CEO
BIC Board Chairman

BATTERY INNOVATION CENTER STRATEGIC ALLIANCES

The Battery Innovation Center is also the home of several strategic alliances and incubators, featuring some of the top names in the energy industry:



UL Testing

- Battery and Energy Storage Technology Test Center—exclusive large-format U.S. energy storage system test facility



BrightVolt

- Scale-up for ultra-thin film and flexible batteries
- Commercialization for medical patches, industrial sensors, internet of things (IoT) devices, shipping labels and smart card technologies



Ateios

- Highly customizable flexible batteries
- Scale-up for flexible electronics, smart textiles, soft robotics, internet of things (IoT) and medical/fitness wearables



Duke Energy

- Micro grid simulation and grid-level control algorithm development
- Leveraging installed and new renewable generation



NSWC Crane

- CITE agreement allows direct access to the U.S. Navy's world-class environment, health and safety test facilities
- Crush, shock, drop, vibe, rapid disassembly, intrusion, EMI

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